AMENDMENTS TO THE CLAIMA

Please amend Claims 1, 7, 8, 15, and 16 as follows. Insertions are shown underlined while deletions are ~~struck through~~. Please cancel Claims 4-6 and 11.

1 (currently amended): A plasma treatment apparatus for thin-film deposition comprising:

a reactor chamber;

a pair of parallel-plate electrodes disposed inside the chamber, between which a thin film is to be formed on a substrate; and

a radio-frequency power supply system used for transmitting radio-frequency power to one of the parallel-plate electrodes via multiple supply points provided on the one of the parallel-plate electrodes,

said radio-frequency power supply system comprises:

a radio-frequency power source; and

a radio-frequency transmission unit for transmitting radio-frequency power from the radio-frequency power source simultaneously to the multiple supply points of the one of the parallel-plate electrodes,

said radio-frequency transmission unit comprising:

an inlet transmission path and multiple branches branched off from the inlet transmission path, wherein each branch connected to the supply point of the parallel-electrode is multiple branchings downstream of the inlet transmission path and has a substantially equal characteristic impedance value, said multiple branchings including a first branching and a second branching downstream of the first branching; and

at least one inductance adjuster which is removably installed in ~~at least one~~ each branch to render substantially equal the characteristic impedance value of each branch connected to the multiple supply points,

wherein each branch comprises a hollow copper tube as an inductor,

each inductance adjuster is a ferrite core which removably encircles the hollow copper tube to adjust an impedance value of the transmission system,

the hollow copper tube of the second branching is smaller in diameter than the hollow copper tube of the first branching, and

the ferrite core encircling the hollow copper tube of the second branching is smaller than the ferrite core encircling the hollow copper tube of the first branching.

2 (original): The plasma treatment apparatus according to Claim 1, wherein the radio-frequency power supply system further comprises an impedance matching circuit between the radio-frequency power source and the radio-frequency transmission unit.

3 (previously presented): The plasma treatment apparatus according to Claim 1, wherein each branch connected to the multiple supply point is one of two branchings downstream of the inlet transmission path, and four branches are connected to the multiple supply points.

4 (canceled)

5 (canceled)

6 (canceled)

7 (currently amended): The plasma treatment apparatus according to Claim 1, wherein the radio-frequency power transmission unit comprises a metal plate and the inductors ~~having~~ have substantially equal impedance values.

8 (currently amended): The plasma treatment apparatus according to ~~Claim 6~~, wherein ~~the radio-frequency power transmission unit comprises~~ the hollow copper tube of the first branching and the hollow copper tube of the second branching are connected by a metal plate ~~and inductors having substantially equal impedance values, each inductor comprising a hollow copper tube~~, and the ferrite core has a circular-ring shape which can be inserted/attached into the hollow copper tube to adjust an impedance value of the transmission system by selecting the number of ferrite cores to be inserted/attached.

9 (original): The plasma treatment apparatus according to Claim 1, wherein the radio-frequency power has a frequency of about 27.12 MHz or higher.

10 (original): The plasma treatment apparatus according to Claim 1, wherein the supply points comprise supply terminals which are disposed on a surface of the one of the electrodes in rotationally symmetrical positions with respect to the center of the surface.

11 (canceled)

12 (original): The plasma treatment apparatus according to Claim 1, wherein the radio-frequency power source is a first radio-frequency power source and the supply system further comprises a second radio-frequency power source emitting power which has a different

frequency from that of the power emitted from the first radio-frequency power source, and which is overlaid on the power emitted from the first radio-frequency power.

13 (original): The plasma treatment apparatus according to Claim 12, wherein the second radio-frequency power has a frequency of about 1 MHz or less.

14 (original): The plasma treatment apparatus according to Claim 2, wherein the impedance matching circuit is connected to the radio-frequency transmission unit by a co-axial cable.

15 (currently amended): A plasma treatment apparatus for thin-film deposition comprising:

a reactor chamber;

a pair of parallel-plate electrodes disposed inside the chamber, between which a thin film is to be formed on a substrate; and

a radio-frequency power supply system used for transmitting radio-frequency power to one of the parallel-plate electrodes via multiple supply points provided on the one of the parallel-electrodes,

said radio-frequency power supply system comprises:

a radio-frequency power source;

an impedance matching circuit; and

a radio-frequency transmission unit for transmitting radio-frequency power from the radio-frequency power source simultaneously to the multiple supply points of the one of the parallel-plate electrodes via the impedance matching circuit,

said radio-frequency transmission unit comprising:

an inlet transmission path and multiple branches branched off from the inlet transmission path, wherein the inlet transmission path branches into two secondary branches, each secondary branch branching into two tertiary branches, each tertiary branch being connected to the supply point and having a substantially equal characteristic impedance value; and

at least one inductance adjuster which is removably installed in at least one branch to render substantially equal the characteristic impedance value of each branch connected to the multiple supply points,

wherein each branch comprises a hollow copper tube as an inductor,

each inductance adjuster is a ferrite core which removably encircles the hollow copper tube to adjust an impedance value of the transmission system,

the hollow copper tube of the tertiary branching is smaller in diameter than the hollow copper tube of the secondary branching, and

the ferrite core encircling the hollow copper tube of the tertiary branching is smaller than the ferrite core encircling the hollow copper tube of the secondary branching.

16 (currently amended): A radio-frequency transmission unit configured to connect a radio-frequency power source and a reaction chamber of a plasma treatment apparatus for thin-film deposition, comprising:

an inlet transmission path and multiple branches branched off from the inlet transmission path, wherein branches configured to be connected to one of two parallel-plate electrodes provided in the reaction chamber are multiple branchings downstream of the inlet transmission path and have a substantially equal characteristic impedance value, wherein the branches which are multiple branchings downstream of the inlet transmission path are symmetrically disposed with respect to a center of the one of the electrodes for transmitting radio-frequency power from the radio-frequency power source simultaneously to the multiple branching, said multiple branchings including a first branching and a second branching downstream of the first branching; and

at least one inductance adjuster which is removably installed in at least one branch to render substantially equal the characteristic impedance value of each branch connected to the multiple supply points,

wherein each branch comprises a hollow copper tube as an inductor,

each inductance adjuster is a ferrite core which removably encircles the hollow copper tube to adjust an impedance value of the transmission system,

the hollow copper tube of the second branching is smaller in diameter than the hollow copper tube of the first branching, and

the ferrite core encircling the hollow copper tube of the second branching is smaller than the ferrite core encircling the hollow copper tube of the first branching.

17 (original): The radio-frequency transmission unit according to Claim 16, which is connected to an impedance matching circuit via a coaxial cable.

18-27 (canceled)

28 (previously presented): The plasma treatment apparatus according to Claim 10, wherein the supply terminals are disposed in the vicinity of an outer periphery of the electrode.

29 (previously presented): The plasma treatment apparatus according to Claim 28, wherein the supply terminals are disposed in the vicinity of and along the outer periphery of the electrode at equal intervals.

30 (previously presented): The plasma treatment apparatus according to Claim 1, wherein the parallel-plate electrodes are a susceptor and a showerhead with thousands of openings for jetting gas, wherein the supply terminals are connected to the showerhead.

31 (previously presented): The plasma treatment apparatus according to Claim 1, wherein each of the branches connected to the multiple supply points is provided with multiple inductance adjusters as the at least one inductance adjuster, the number of the multiple inductance adjusters being different at at least one branch relative to others of the branches to render substantially equal the characteristic impedance value of each branch connected to the multiple supply points.

32 (previously presented): The plasma treatment apparatus according to Claim 31, wherein the substantially equal characteristic impedance value of each branch connected to the multiple supply points is such that film thickness non-uniformity of ±3% or less is achieved in film deposition onto a large-area semiconductor substrate having a diameter of 300 mm using the plasma treatment apparatus.